In Vivo Analgesic Effect of Acetone Extract of Dried Pods of *Indigofera suffruticosa*.

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*Indigofera suffruticosa* Mill (Fabaceae) is a shrub popularly known as anil, which grows worldwide. It's commonly used in popular medicine to treat infectious agents, inflammations, diarrhea and pain. Several studies have examined the possible therapeutic effects of organic extracts from this plant. This study evaluated the antinociceptive activity of acetone extract from *I. suffruticosa*. The extract was prepared from the dried finely ground pods (100g) and extracted 3x with 200 mL acetone. Antinociceptive activity was evaluated through writhing and hot plate tests using mice. The writhing test was induced by intraperitoneal acetic acid (0.8%) injection to each animal, one hour after the administration of the acetone extract (400 mg/Kg). For the hot plate test, each animal was subjected to a hot plate (55º ± 1 ºC) before and after the treatment (times 0, 1, 2, 3 and 4 hours), not exceeding the maximum time (1 minute) to avoid tissue damage. The extract effect was compared with common drugs Ibuprofen (100 mg/Kg) and Morphine (10 mg/Kg). Statistical significance (p<0.05) was determined by analysis of variance followed by Bonferroni test. The acetone extract (400 mg/kg) produced significant (p<0.05) inhibition on nociception induced by acetic acid, with 96.9% of analgesic effect in the writhing test, while the standard Ibuprofen (100 mg/kg) showed 87.6% activity. The peak of antinociceptive activity using the method of hot plate was observed within 30, 60 and 120 minutes. Morphine activity was only observed after 60 minutes, 30 minutes after the acetone extract. These results suggest that the acetone extract of dried pods of *I. suffruticosa* proved to be a significant analgesic agent in mice. These results suggest that *I. suffruticosa* acetone extract has pharmacological potential for new drugs development tests.

**Keywords:** Antinociceptive, Writhing, Hot plate.

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